

Listing of Claims:

Claims 1-6 (Canceled)

7. (Currently Amended) The system according to claim ~~6~~ 12, wherein said setting means includes a reference detection mechanism for detecting the reference position and the reference angle.

Claims 8 and 9 (Canceled).

10. (Currently Amended) The system according to claim ~~9~~ 12, wherein the rotation angle is calculated from the moving distance detected by the encoders corresponding to two of the wheels, which are distant with respect to the moving direction.

11. (Previously Presented) The system according to claim 10, wherein said two wheels are most distant along a direction perpendicular to the moving direction of the wheels of the moving pedestal.

12. (Currently Amended) ~~The~~ An image pick-up system according to claim ~~9~~, for picking up a real object image of an

object to be operated together with another image, said system comprising:

- 5 a camera unit comprising a camera for picking up an image of an object mounted on a moving pedestal via a pan head;
- calculating means for calculating a positional relationship between the camera and the object;
- setting means for setting a reference position on a floor surface on which the moving pedestal moves and a reference angle of the moving pedestal and for inputting the reference position and the reference angle to said calculating means; and
- 10 detection means for detecting a moving amount of the moving pedestal from the reference position, and a rotation angle of the moving pedestal from the reference angle;
- wherein said calculating means calculates a position and an angle of the camera with respect to the object based on the reference position, the reference angle, the moving amount and the rotation angle of the moving pedestal, and the calculating
- 15 means transmits data of the position and the angle of the camera with respect to the object to a computer for operating together the real object image of the object taken with the camera and said another image based on the position and the angle of the camera with respect to the object;
- 20 wherein said detection means detects the moving amount of the moving pedestal by measuring a length of a portion of a wheel
- 25 wherein said detection means detects the moving amount of the moving pedestal by measuring a length of a portion of a wheel

of the moving pedestal, which has been brought into contact with the floor surface;

30 wherein the moving pedestal comprises at least three wheels and said detection means includes at least three encoders each for detecting a moving distance of a respective one of the wheels;

35 wherein the moving pedestal further comprises a roller in contact with each of the wheels to be rotated together with the wheel; [,] and

wherein the moving distance of each of the wheels is detected based on the number of rotations of the respective roller and a pulse number counted by the respective encoder.

Claim 13 (Canceled).

14. (Currently Amended) The An image pick-up system according to claim 13, for picking up a real object image of an object to be operated together with another image, said system comprising:

5 a moving pedestal including three wheels;

a camera unit comprising a camera for picking up the real object image of the object, which is mounted via a pan head on said moving pedestal;

calculating means for calculating a positional relationship

10 between the camera and the object;

three encoders provided respectively corresponding to said
three wheels of said moving pedestal;

a plurality of sensors provided on said moving pedestal for
detecting a predetermined mark on a floor surface on which said
15 moving pedestal moves;

setting means for setting a reference position on the floor
surface and a reference angle of said moving pedestal, which are
determined based on detection values of said plurality of sensors
and pulse numbers counted by said encoders during movement of
20 said moving pedestal, and for inputting the reference position
and the reference angle to said operation means; and

detection means for detecting, based on the pulse numbers
counted by said encoders, a moving amount of the moving pedestal
from the reference position, and a rotation angle of the moving
25 pedestal from the reference angle;

wherein said calculating means calculates a position and an
angle of the camera with respect to the object based on the
reference position, the reference angle, the moving amount from
the reference position and the rotation angle from the reference
30 angle, which are obtained based on the pulse numbers counted by
said encoders, and transmits data of the position and the angle
of the camera with respect to the object to a computer for

operating together the real object image of the object taken with the camera and said another image based on the position and the angle of the camera with respect to the object;

35 wherein said detection means detects the moving amount of the moving pedestal by measuring a length of a portion of a wheel of the moving pedestal, which has been brought into contact with the floor surface;

40 wherein the moving pedestal further comprises a roller in contact with each of the wheels to be rotated together with the wheel; [,] and

45 wherein the moving distance of each of the wheels is detected based on the number of rotations of the respective roller and a pulse number counted by the respective encoder.

15. (New) The system according to claim 12, wherein a first line and a second line are provided on the floor surface to perpendicularly intersect at said reference position,

5 wherein two first sensors for detecting the first line and one second sensor for detecting the second line are provided on the moving pedestal, and

 wherein said reference position and said reference angle are found based on a position of each of the two first sensors at a time when the two first sensors each pass said first line, and a

10 position of the second sensor at a time when said second sensor passes the second line.

16. (New) An image pick-up system for picking up an image of an object, said system comprising:

a camera unit comprising a camera for picking up an image of an object mounted on a moving pedestal via a pan head;

5 calculating means for calculating a positional relationship between the camera and the object;

setting means for setting a reference position on a floor surface on which the moving pedestal moves and a reference angle of the moving pedestal and for inputting the reference position 10 and the reference angle to said calculating means; and

detection means for detecting a moving amount of the moving pedestal from the reference position, and a rotation angle of the moving pedestal from the reference angle;

wherein said calculating means calculates a position and an 15 angle of the camera with respect to the object based on the reference position, the reference angle, the moving amount and the rotation angle of the moving pedestal, and the calculating means transmits data of the position and the angle of the camera with respect to the object to a computer for creating an image 20 containing a real object image of the object taken with the camera;

wherein the moving pedestal comprises at least three wheels and said detection means includes at least three encoders each for detecting a moving distance of a respective one of the 25 wheels;

wherein the moving pedestal further comprises a roller in contact with each of the wheels to be rotated together with the wheel; and

wherein the moving distance of each of the wheels is 30 detected based on the number of rotations of the respective roller and a pulse number counted by the respective encoder.